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Dated: February 25, 2005

Signature:

  
(Anthony X. Laurentano)

Docket No. TGZ-030  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:

John R. Gilbert *et al.*

Application No. 10/816,514

Confirmation No. 9911

Filed: March 31, 2004

Art Unit: 1723

For: IMPLEMENTATION OF MICROFLUIDIC  
COMPONENTS, INCLUDING MOLECULAR  
FRACTIONATION DEVICES, IN A  
MICROFLUIDIC SYSTEM

Examiner: K. S. Menon

**RESPONSE TO RESTRICTION REQUIREMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the restriction requirement set forth in the Office Action mailed December 27, 2004 (Paper No. 1204).

The Examiner has required restriction between the following inventions in the above-identified application:

Group I: Claims 1-10, 11-16, 17, 18, 46-52 and 59, drawn to microfluidic device, classified in class 210, subclass 321.6.

Group II: Claims 19-31 and 53-58, drawn to method of segregating molecules, classified in class 210, subclass 635.

Group III: Claims 32-34, drawn to method of sample processing, classified in class 435, subclass 4.

Group IV: Claims 35-39, drawn to method of analyzing, classified in class 436, subclass 501.

Group V: Claims 40-44, drawn to method of fabricating a fractionation device, classified in class 216, subclass 2.

Accordingly, Applicants hereby provisionally elect Group I, Claims 1-10, 11-16, 17, 18, 46-52 and 59 for continued examination, with traverse.

The examiner further indicated that if Group I is elected, Applicants need to further elect claims pertaining to only one of:

- A. Affinity beads
- B. Enzyme
- C. Detection molecule
- D. Electrophoretic column

Accordingly, Applicants hereby elect Species A, with traverse, for prosecution on the merits to which the claims shall be restricted if no generic claims is finally held to be allowable.

Applicants respectfully traverse the requirements for restriction and election, and submit that the requirements are improper.

The Commissioner may require restriction if two or more independent and distinct inventions are claimed in a single application (37 CFR 1.142(a)). In the present case, although the claimed subject matter may be classified in different classes, the inventions are not independent. A single, searchable unifying feature, i.e., a molecular fractionation device including a matrix for processing a sample, links all of the claims of at Groups I-IV.

Applicants submit that a sufficient search and examination with respect to the subject matter of the claims of Groups I-V can be made without serious burden. As the M.P.E.P. states:

[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions. M.P.E.P. § 803 (8th ed., Rel. 78A, August 2001).

That is, even if the groups of claims are drawn to distinct inventions, the Examiner must still examine the entire application on the merits because doing so will not result in a serious burden.

Applicants submit that the search and examination of all the claims will have substantial overlap, and no serious burden will result from searching and examining all claims in the same application. This is especially true inasmuch as Groups I-V all recite a molecular fractionation device including a matrix for processing a sample.

In view of this identity of claim elements, and the data bases and powerful computer search engines available to the Examiner, there would be no serious burden in examining all the claims in a single application.

Moreover, the patent statutes require that Applicants disclose how to make and use the system and method of the invention. It is only reasonable, then, that Applicants be allowed to prosecute the system and the method for making and using the system in a single application. For example, claims 40-44 in Group V specifically recite a method for fabricating a fractionation device. Claims 19-39 and 53-58 in Groups II, III and IV are directed to methods of using a molecular fractionation device having a matrix to process a sample. Therefore, it is improper to require that the subject matter of these groups be prosecuted in separate patent applications.

In addition, with respect to the requirement to elect a species, Applicants submit that the recitation that the matrix comprises affinity beads is not mutually exclusive of the matrix comprising enzymes or detection molecules. Rather, the enzymes and detection molecules are separate elements that may be added to the matrix, such as affinity beads, to produce a particular reaction. The electrophoretic column recited in claims 8 and 51 is a separate component that may be coupled to the molecular fractionation device to provide further separation. These recitations are not patentably distinct features.

Accordingly, it is respectfully requested that the restriction requirement be withdrawn, and that all of the claims presently pending in this application be examined. Applicants urge that Groups I-V be rejoined, as the claims are clearly not directed to distinct or independent inventions.

Nevertheless, in compliance with the directives in the Office Action and in order to expedite prosecution of the instant application, Applicants hereby elect, subject to the foregoing traverse, Group I (claims 1-10, 11-16, 17, 18, 46-52 and 59).

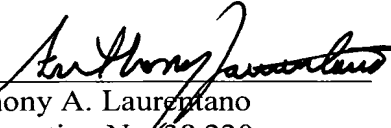
Applicants reserve the right to pursue the non-elected claims, or similar claims, in this or one or more subsequent patent applications.

If a telephone conversation with Applicants' attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned attorney at (617) 227-7400.

Applicants believe no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. TGZ-030 from which the undersigned is authorized to draw.

Dated: February 25, 2005

Respectfully submitted,

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